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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--------------------------------------------------------------------------------------------------------------------------|-------------|----------------------|---------------------------|------------------------|
| 10/714,401 | 11/17/2003 | Iain B. Findleton | 16764-1US CMB/ad | 2045 |
| 20988 7590 01/05/2009 OGILVY RENAULT LLP 1981 MCGILL COLLEGE AVENUE SUITE 1600 MONTREAL, QC H3A2Y3 CANADA | | | EXAMINER WALSH, JOHN B | |
| | | | ART UNIT 2451 | PAPER NUMBER |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|-----------------------------------------|--|
| Office Action Summary | Application No. 10/714,401 | Applicant(s) FINDLETON ET AL. | |
| | Examiner John B. Walsh | Art Unit 2451 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 September 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-6,8-10 and 16-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-6,8-10 and 16-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 2, 3, 5, 6, 8-10, 16-20 and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,321,236 to Zollinger et al.

As concerns claims 16-18, a method for executing a common task in a clustered computing environment comprising a plurality of computers interconnected to collaborate on said common task, said plurality of computers including at least a client computer (48) and a shared storage medium (68) storing common data, said method comprising: maintaining, at the shared storage medium a main list including information identifying data elements stored in the shared storage medium and a respective version number of each data element (figures 1, 3A-3B, 4); maintaining, at each client computer, a local list (figure 1-database of 48) containing, for each one of the data elements previously accessed from the shared storage medium, information identifying a corresponding original data element in the shared storage medium and a respective current version number of the data element stored in the client computer (figure 6-102); when an application executing on a given client computer attempts to access a selected data element, sending a request from the client computer to the shared storage medium, the request including the information identifying the selected data element and the respective current

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version number (fig. 6 -96, 102); upon receipt of the request by the shared storage medium, matching the current version number received from the client computer with the respective version number in the main list (figures 1, 5 and 6); based on the matching, sending to the client computer one of: a first reply including a confirmation that the current data version of the selected data element is valid when the current version number received from the client computer matches the version number associated with the data element in the main list (col. 3, lines 53-60; client copy current since identical to server copy no update); and a second reply including a new copy of the selected data element and a respective new version number when the version number received from the client computer does not match the version number in the main list (fig. 7 - 116; fig. 6 - 106,110); and upon receipt of the first reply from the shared storage medium, executing the common task at the client computer using the data element stored in the client computer (need not perform this step if first reply is not selected above; however inherent client will execute using the current data stored if no update), and upon receipts of the second reply, modifying the data element stored in the client computer using the received data element prior to executing the common task (fig. 7 - 116); modify the data element to create a modified data element and modify the selected data element on the shared storage medium based on the modified data element (these limitations are only executed if the second reply is sent, the claim does not require both the first and second reply only one).

As concerns claims 2 and 19, wherein said sending a request from the client computer to the shared storage medium comprises sending a null-valued version number (column 9, line 63) when said selected data element is not stored on said client computer, and wherein said sending

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of one of a first reply and a second reply comprises sending said client computer a copy of the selected data element and a respective version number for storage on said client computer ().

As concerns claims 3 and 20, wherein said request for said data element contains an address range (inherent stored data will have an address range) defining said selected data element on said shared medium.

As concerns claims 5 and 22, wherein said client computer communicates with said shared medium through a network block device driver (column 5, lines 13-15; column 5, lines 30-35).

As concerns claim 6, the method as claimed in claim 16, wherein said shared medium is a server memory storage space (figure 1-68).

As concerns claim 8, wherein the request comprises information identifying multiple selected data elements associated with multiple separate data structures each containing one of multiple respective version numbers, and further comprising creating a new single data structure in said master list associated with said selected data elements and removing said multiple separate data structures from said master list (figure 5; 92) after said selected data elements is accessed by said client computer.

As concerns claim 9, further comprising updating the master list with a new version number after the selected data element is modified (figure 4).

As concerns claim 10, wherein said master list comprises a list of data structures which is a double linked binary tree list (column 9, lines 30-32).

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Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.

Patent No. 6,321,236 to Zollinger et al. as applied above in view of U.S. Patent No. 5,574,953 to Rust et al.

Zollinger et al. '236 do not explicitly disclose wherein said address range comprises non-contiguous storage blocks.

Rust et al. '953 teach storing data in non-contiguous storage (abstract).

It would have been obvious to one having ordinary skill in the art at the time of the invention to provide storing data in non-contiguous storage, as taught by Rust et al. '953, in order to provide the expected result of a means of storing data in a fragmented storage medium.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John B. Walsh whose telephone number is 571-272-7063. The examiner can normally be reached on Monday-Thursday from 8:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on 571-272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John B. Walsh/
Primary Examiner, Art Unit 2451